



CROSBY STYLE PVR PRESSURE/VACUUM RELIEF VALVE

A versatile sanitary relief valve for the brewing, beverage, food processing and pharmaceutical industries



FEATURES

- Self-actuated operation.
- Relieves excess air or gas pressure.
- Relieves excess liquid pressure in the absence of air or gas blanketing.
- Designed to prevent vacuum formation that could cause the vessel to buckle.
- Body and all internal parts designed to operate after exposure to process fluids and withstand direct flushing and cleansing of sterilizing agents, caustics, water or steam.
- Allows complete drainage after operation and/or flushing and minimizes crevices which might trap contaminants or promote freezing in cold environments.
- Standard FKM O-ring seats on both discs provide tight shutoff.
- All materials are corrosion resistant and all exposed surface finishes are controlled to enhance sanitary features.
- Tamper-proof lead sealed cap.
- Manufactured to ASME Code Section VIII requirements.
- Capacities on compressible fluid certified by the National Board of Boiler and Pressure Vessel Inspectors.

GENERAL APPLICATION

The Style PVR pressure/vacuum relief valve is a sanitary valve designed specifically for the brewing, beverage, food processing and pharmaceutical industries.

TECHNICAL DATA

Sizes:	3" and 4" (DN 80 and DN 100)
Inlet connections:	Lug union nut, ANSI flanged, Tri-clamp
Set pressures:	14.5 to 125 psig (1 to 8.62 barg)
Vacuum relief (typical):	2" wc (5 mbarg)
Temperature range:	-15 to +400°F (-26 to +204°C)
Code:	ASME VIII (15 psig and above)

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SPECIFICATIONS

The PVR is a versatile design for reliable and trouble-free operation. Its set pressure may be adjusted by the stainless steel bolt, which is also the pressure relief disc guide. The pressure relief disc in turn guides the vacuum disc and spring. Vacuum relief set pressure is pre-set at the factory and is non-adjustable.

Standard connections

- Lug union nut inlet connection. Other connections may be designed to specific requirements.
- The outlet must be open to the atmosphere to assure valve cleanliness and proper performance.

Available options

- Flanged inlet connection -RF or FF
- Tapered inlet pipe (internal or external)
- Female pipe inlet connection
- Tri-clamp inlet sanitary connector (Ladish)
- Proximity switch

Standard materials

- Bronze cylinder, stainless steel and bronze trim with FKM seats.
- Alternative materials may be provided to meet special requirements.
- Connection gasket is per customer specification.

Weight (including lug union nut)

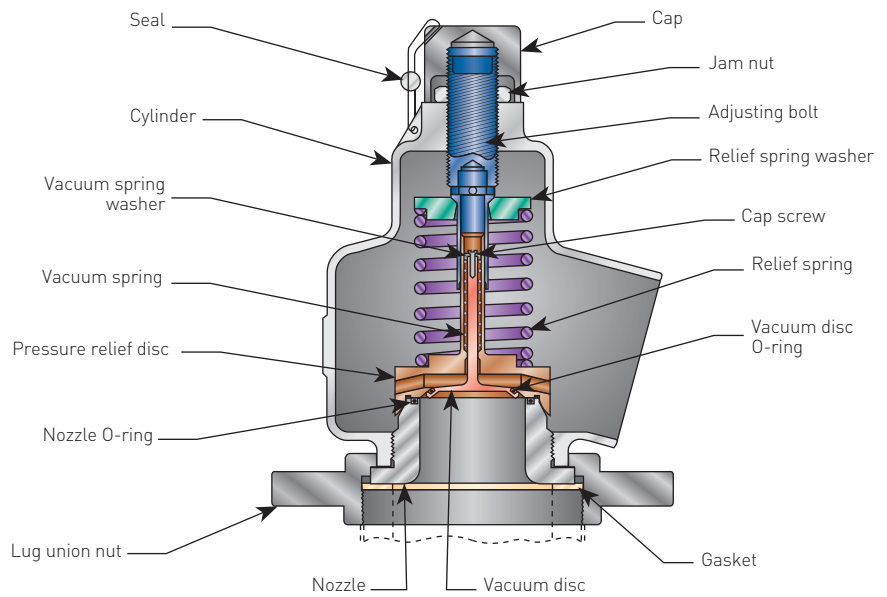
- 3" - 28 lbs. approximate
- 4" - 46 lbs. approximate

Typical operating characteristics

Example 3" size
 Set pressure relief 25 psig; vacuum relief 2" wc

Capacity

Liquid 400 gpm at 25 psig set pressure and 10% overpressure.
 Gas 989 SCFM at 25 psig set pressure and 10% overpressure.
 Vacuum 45 SCFM 2" wc vacuum set pressure with 8" wc total pressure drop.



Optional operating characteristics

Specifications shown are current standards. Please contact your local sales representative for applications requiring special design or operating characteristics.

NOTE

1. Short springs and cylinders are supplied for set pressures to 25 psig (1.7 barg) in 3" (DN 80) size and 27 psig (1.86 barg) in 4" (DN 100) size. Long springs and cylinders are supplied for pressure ranges 26 to 125 psig (1.8 to 8.62 barg) in 3" (DN 80) size and 28 to 125 psig (1.93 to 8.62 barg) in 4" (DN 100) size.

Dimensions and drawings are available.

MATERIALS OF CONSTRUCTION

Part name	Material
Lug union nut	Cast bronze
Nozzle	Stainless steel
Nozzle O-ring	FKM
Pressure relief disc	Cast bronze
Vacuum disc	Stainless steel
Vacuum disc o-ring	FKM
Vacuum spring washer	Stainless steel
Vacuum spring	Stainless steel
Relief spring washer	Brass
Relief spring	Stainless steel
Adjusting bolt	Stainless steel
Jam nut	Stainless steel
Socket head cap screw	Stainless steel/nylok
Cylinder	Cast bronze
Cap	Brass
Nameplate	Stainless steel
Nameplate adhesive	Mod. methacrylate
Seal/wire	Lead/stainless steel
Gasket	White nitrile 4660